STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. Highlighted questions are supplemental to the standard SEPA checklist. These questions look at the proposed project in relationship to the surrounding landscape. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the attached forest practice application acres, or the actual timber sale acres.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name:EAST RADAR Agreement #: 30-074809

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person: Jenny Garstang, 411 Tillicum Lane, Forks, WA 98331

4. Date checklist prepared:05/02/2003

5. Agency requesting checklist: Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

   a. Auction Date:10/29/2003
   b. Planned contract end date (but may be extended):
   c. Phasing:

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Timber Sale

   a. Site preparation: No

   b. Regeneration Method: Hand plant 99.6 acres

   c. Vegetation Management: Treatment needs to be assessed overtime, some hardwood competition is anticipated.

   d. Thinning: Treatment needs to be assessed over time.

   Roads: Road maintenance including grading, ditch clean out, and repair or replacement of culverts will occur as necessary on existing roads. Some roads constructed or reconstructed under this proposal will be used for future timber harvests and other management activities.

   Rock Pits and/or Sale: The rock used for this proposal is an existing pit and will continue to serve the State's future needs for constructing access roads, and performing road maintenance. Commercial sale of rock from this pit is not anticipated at this time

   Other: Future forest management activities are anticipated to continue within the WAU, and adjacent to the current proposal. Potential activities may include but are not limited to firewood salvage, hardwood slashing, maple stump treatment, precommercial thinning, commercial thinning and regeneration harvest. These future activities are connected with this proposal insofar as that they will occur in close proximity to the sale area, and that the roads constructed or reconstructed under this proposal may be used to perform the required

work. All future activities will be consistent with the State's Habitat Conservation Plan (HCP), and applicable policy and planning documents.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐303 (d) – listed water body in WAU: ☐temp ☐sediment ☐completed TMDL (total maximum daily load):
☐Landscape plan:
☐Watershed analysis:
☐Interdisciplinary team (ID Team) report:
☒Road design plan:
☐Wildlife report:
☐Geotechnical report:
☐Other specialist report(s):
☐Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
☒Rock pit plan:
☐Other: Forest Resources Plan, dated July 1992; State Soil Survey; Habitat Conservation Plan (HCP), dated September 1997; G.I.S. Report for SEPA Evaluation on Discovery Bay Watershed Administrative Unit and Sequim Bay Watershed Administrative Unit; Special Concerns and TRAX Reports and Forstery Handbook.

The information listed above is available for review at the Olympic Region Office during the SEPA comment period.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No.

10. List any government approvals or permits that will be needed for your proposal, if known.

☒HPA ☒Burning permit ☐Shoreline permit ☒Incidental take permit ☒FPA # _____ ☒Other: Board of Natural Resources

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:

This proposal is located approximately 7 miles southwest of Sequim. The access is on the PT-B-1000. The East Radar sale consists of one unit totaling 99.6 acres and is located in parts of Sections 16 and 17 of Township 29 North, Range 02 West, W.M. in Clallam and Jefferson Counties. The initial project planning effort identified 109 acres of land to examine for potential timber harvest. Sale reconnaissance identified 9 acres of the original proposal area to be managed for environmental protection rather that timber harvest. The following exclusions were made for this purpose: 6.7 acres leave trees, 2 acres of wetland management zone (WMZ). The timber harvest portion of this proposal involves the sale of timber and the necessary road construction, reconstruction and rock pit development to support this activity.

This proposal involves the sale of timber, and the necessary road construction, reconstruction, and rock pit development to support the timber sale.

Sale of Timber:

Estimated Volume:	2,165 MBF
Proposal area in acres:	109
Sale area in acres:	99.6
Type of harvest:	Regeneration harvest
Logging system:	cable and ground-based methods
Landings: Number	5
Total area in acres	.5

Roads:

To be constructed:	2,666 ft
To be reconstructed:	4224 ft
To be improved:	37,330 ft

Rock Pits an/or Sales: The Jimmycomelately Pit located on State land in the NW1/4,NW1/4 of Section 29 T29N R2W will be the rock source for this sale. Rock may be obtained from commercial sources.

Other Related Actions: Firewood will be salvaged (post harvest) at the landing sites and any remaining landing debris will be piled and burned. The sale area will be reforested and vegetation management will be assessed on an on going basis.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

This proposal is located within the western hemlock vegetation zone (TSHE). The stand is low site Douglas fir, with a lesser component of western hemlock and some western red cedar, and red alder. The stand age ranges from 60-100 years old. The average diameter of the stand is 13 inches and average tree height is 88 feet. There is a glaring absence of older residual trees throughout the unit. This type of material was searched out during the leave tree marking phase, however few were found. This is likely the result of more intensive utilization at the time of initial harvest and an intensive burn history.

The harvest is planned to be a regeneration harvest with scattered individual leave trees and leave tree clumps. A combination of ground and cable methods will be employed to harvest the timber.

This proposal will provide revenue to the trust beneficiaries while protecting ecological and other values. This includes: maintaining trees of unique structural characteristics such as old residual Douglas fir and western hemlock; protecting soil productivity; protecting the Type 3 and Type 4 stream, and forested wetland; and evaluating the use of a road system that will most efficiently serve management needs while minimizing long term road impacts. Objectives also include reforesting the area to a well-stocked condition.

c. Road activity summary. See also attached forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		2,666	1	0
Reconstruction		4,224		0
Maintenance		37,330		0
Abandonment		740	.25	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	9			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See attached timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")

a. Legal description:

T29N R2W S16
T29N R2W S17
T29N R2W S29 (pit)

d. Distance and direction from nearest town (include road names):

This proposal is located approximately 7 miles southwest of Sequim on U. S. Highway 101. The access is from Chicken Coop Road then onto the PT-B-1000.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
DISCOVERY BAY	60,658	92
SEQUIM BAY	27,326	8

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)

This proposal is located in the Salmon Creek sub-basin of the Discovery Bay WAU. The Discovery Bay WAU consists of 60,658 acres of mixed ownership lands. The Salmon Creek sub-basin is located in the mid-portion of the WAU, to the north is the Eagle Creek sub-basin and, Snow Creek drainage basins is to the south. DNR managed lands represent 12% of the total land base within the WAU. A substantial portion of the headwaters of the Salmon Creek watershed lies within the Olympic National Forest. The current stand conditions on State land within the WAU reflect 28% in the 0-24 year age class, and 72% in the 25+ year category. These age classes were selected to reflect upon what is considered hydrologically mature. Completion of this proposal and other planned and active sales in the WAU would shift this number to 33% and 67% respectively. This does not take into account the stands that will mature into the 25-year-old threshold during the expected two to three year contract term of these proposals.

This proposal is located in the Sequim Bay WAU. The Sequim Bay WAU consists of 27,326 acres of mixed ownership lands. DNR managed lands represent 30% of the total land base within the WAU. The current stand conditions on State land within the WAU reflect 38% in the 0-24 year age class, and 62% in the 25+ year category. These age classes were selected to reflect upon what is considered hydrologically mature. Completion of this proposal and other planned and active sales in the WAU would shift this number to 41% and 59% respectively. This does not take into account the stands that will mature into the 25-year-old threshold during the expected two to three year contract term of these proposals.

The general surrounding landscape is one of mixed forestland ownership that is managed as commercial forest. The sale area is contained within a 5000-plus acre block of State ownership that is a mix of stand ages ranging from 5 years to 100+. The average stand age is 65 years old. To the north, east and west there are small land owners and larger private land owners. The Olympic National Forest abuts the State ownership to the southeast. The U.S. Forest Service (USFS) manages these lands as part of an Adaptive Management Area (AMA). The primary emphasis of the AMA is to restore structural complexity to simplified forests and streams, and to develop more diverse managed forest through silvicultural approaches such as long rotations and retention of structure. The current mature forest type found here will likely be managed to preserve older forest characteristics on the immediate landscape in the future.

Future timber harvest activity in the surrounding landscape is anticipated to continue. Within the Discovery Bay WAU 336 acres of State land have been or are planned to be harvested within the next 4 years, and 236 acres in the Sequim Bay WAU have been or are planned to be harvest in the next 4 years.

All current and future activities will be conducted according to the State's HCP, Forest Resource Plan, and State Forest Practices Rules, and are expected to mitigate for any potential adverse cumulative effects. Several measures have been taken to reduce the risk of negative environmental impacts. Twenty percent of the gross proposal acreage will remain in leave tree areas, RMZs, WMZs, and cliff protection. Dispersed and clumped leave trees will provide structure for many wildlife species to use. The density of leave trees will average eight trees per acre for the sale. Snags and down wood will also be provided. Assessments have been performed to evaluate the potential use of the proposal area by threatened and endangered species, in order to ensure their protection. Road network planning and road design have been performed in order to minimize the amount of road construction needed, and to ensure the quality of existing and newly constructed roads. Timing restrictions on new road construction will help to maintain the integrity of roads, and reduce the potential for off site movement of sediments. Ground yarding operations shall be suspended during periods of severe wet soil conditions when rutting of skid roads begins. Forest cover analysis was performed to ensure adherence to current policy on hydrologic maturity within WAU boundaries. G.I.S landscape reports were checked to evaluate the location of this proposal relative to the rain-on-snow zone mapping units.

A change to be noted to the WAU and adjacent maps is that the unit as shown is not correct. The unit boundary should expand to the northwest and is partially bound by the existing road shown in the adjacency map. Also not noted are two sales that are planned for sale in March 2004. These two sales are located in Township 30 Range 01 west, section 8 and in Township 28 Range 02 west, section 9 and 16, West Jacob Miller and Taylor Ranch, respectively.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Discovery Bay WAU is located on the Olympic Peninsula along the Strait of Juan De Fuca. There are 60,658 acres total and DNR ownership makes up 12% of the land base in the WAU. The north half of the WAU is made up of relatively flat low elevation lands in use as rural residential, agriculture, and commercial forest. The south half exhibits mostly forestlands, of which the USFS is the largest landowner. The maximum elevation is 4,196 feet at the top of the watershed on national forest land. The steeper slopes in the WAU are found in the southern half, with the exception of the 50 –150 foot bluffs along the Strait. The lower elevations have generally more gentle slopes with and more intense land use patterns. The entire WAU is within the Olympic rain shadow and receives annual precipitation ranging from less than 20 inches on 43% of the land to a maximum 45inchs on l % of the acreage. Forests have extensive burn history throughout the WAU with fire return intervals among the lowest in western Washington. The dominant forest type is Douglas fir with associated western red cedar, western hemlock, grand fir, red alder, bigleaf maple, pacific madrone and bitter cherry. The managed forestlands are primarily regenerated with Douglas fir and red alder.

The Sequim Bay WAU is located on the Olympic Peninsula along the Strait of Juan De Fuca. There are 27,326 acres total and DNR ownership makes up 30% of the land base in the WAU. The WAU ranges from sea level to 3,428 feet. The lower elevations are characterized by hilly, rolling terrain with steeper slopes mostly limited to the incised stream channels, with Douglas fir forests and rain shadow weather patterns. The upper elevations are generally steeper slopes, with forests transitioning to Douglas fir/red cedar. The entire WAU is within the Olympic rain shadow and receives annual precipitation ranging from less than 20 inches on 28% of the land to a maximum 35 inches on 30% of the acreage. The proposal area, as well as most of the forest below 2000 feet has been logged at least once and burned in numerous, intense wildfires. The dominant forest type is Douglas fir with associated western red cedar, western hemlock, grand fir, red alder, bigleaf maple, pacific madrone and bitter cherry. The managed forestlands are primarily regenerated with Douglas fir.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

The proposal is located in the southern portion of the Discovery Bay WAU and the very northern portion of the Sequim Bay WAU, where the majority of the land use is commercial forest. The elevation range is in transition from the lower, rolling topography, to the foothills of the steeper mountainous terrain. The maximum elevation of the sale area is 2,000 feet, and the sale is not located in the peak rain-on-snow zone.

b. What is the steepest slope on the site (approximate percent slope)?

100% on <5% of the sale area. There are a few vertical pitches off rock outcroppings, however these are not representative of contiguous slope conditions.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
1113	GRAVELLY SANDY LOAM	15-30	49	INSIGNIFIC'T	LOW
4331	GRAVELLY LOAM	10-30	51	INSIGNIFIC'T	LOW

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications:

There are no surface indications or history of unstable soils in the immediate vicinity.

2) Is there evidence of natural slope failures in the sub-basin(s)?
☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

Natural slope failures occur within incised draws and gorges where streams undercut the toe of the slope, causing some slides to begin. The unnamed Type 3 adjacent to the East Radar proposal does not have the over steepened gorges or incised draws. Slope failures also occur on steep slopes underlain by unstable, glacial soils during periods of extreme saturation. Both of these conditions exist within the steeper gorge area of the Salmon Creek drainage. These failures are shallow-rapid in nature and can be viewed throughout the Salmon Creek drainage

and some of its tributaries in this area. Deep-seated failures occur on over steepened bluffs along the shorelines of the Strait of Juan De Fuca where the tidal action has eroded the toe of the slope.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
Associated management activity:

Slope failures have occurred where timber harvest and road construction has been performed on extremely steep unstable slopes. Road failures are primarily associated with older, poorly constructed sidecast roads

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
☒No ☐Yes, describe similarities between the conditions and activities on these sites:

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

None needed.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads:0.25 Approx. acreage new landings: 0.5 Approx. acreage rock pit fills: 0 Fill source:

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

A small amount of surface erosion incidental to freshly exposed soils is anticipated.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximate percent of proposal in permanent road running surface (includes gravel roads):

About 1 % of the proposed sale area will be covered with additional road running surface as defined by compacted surfacing. This is based on newly constructed roads and landings only.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

New Road construction will not be allowed from November 1 to April 30 to maintain the integrity of existing roads and reduce the potential for off site movement of sediments. There are 9 culverts being installed to bring the forest roads up to the new Forest Practice specifications. Roads will be constructed with properly located ditches, ditchouts and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Operations shall be suspended during periods of wet weather or wet soil conditions when rutting of skid roads begins. The use of rubber tired skidders will not be allowed in order to prevent excessive rutting and minimize soil disturbance. Waterbars will be installed on skid trails as necessary to control erosion.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Insignificant amounts of engine exhaust from logging equipment and dust from passage of log trucks. Logging slash, if burned, will adhere to the State's smoke management plan.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See attached timber sale map and forest practice base maps.)

a) Downstream water bodies:

There is one non-typed stream; it is located in the southwest portion of the unit. This water is tributary to an unnamed Type 3, which is tributary to Salmon Creek. At the headwater of the non-typed water a less than ¼ acre wetland was identified. In the northeast corner of the sale a Type 4 with an associated forest wetland greater than 1 acre was identified. This Type 4 turns into a Type 3. This Type 3 continues to flow south adjacent to the proposal. All water in this proposal runs into Salmon Creek which eventually flows into Discovery Bay.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Forested wetland (< ¼ acre)	N/A	1	Leave trees around perimeter
Forested wetland(> 1	N/A	1	Site index buffer of 155 feet

acres)			
Type 4	Np	1	100 foot riparian buffer
Type 3	F	1	Site index buffer of 155 feet

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

In the northeast corner of the sale a Type 4 with an associated forest wetland greater than 1 acre was identified. This forested wetland has a site index buffer of 155 feet, and where possible the buffer is being taken down to 120 basal area of windfirm trees. Trees marked for removal have been selected to provide harvest access without equipment operations within the wetland perimeter. The previously mentioned Type 4 turns into a Type 3 that continues to flow south adjacent to the proposal; the site index buffer for this stream is 155 feet.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐No ☒Yes (See RMZ/WMZ table above and attached timber sale map.)
Description (include culverts):

The proposal requires cables to be hung across the Type 4, Type 3 and greater than 1 acre forested wetland, a hydraulic permit will be obtained from the WDFW before this can occur.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)
☒No ☐Yes, description:

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒No ☐Yes, describe location:

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒No ☐Yes, type and volume:

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

It is possible that surface erosion is occurring in areas as described in Part B.1.d.2. The GIS database shows that only a small percentage of the soils in the WAUs have medium to high surface erosion and mass wasting potential 2 % in the Discovery Bay WAU and 3 % in the Sequim Bay WAU. Soils reports also indicate that the soil types present within the boundaries of this proposal have low erosion potential. Based on the sale design, off site movement of sediment should be minimal.

8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☐No ☒Yes, describe changes and possible causes:

There are some channels in the WAU which show evidence of accelerated aggradations due to a combination of factors including surface erosion, slides and increased peak flows. These changes are attributed to both natural events and human activity and occur throughout the reach of some streams in the WAU. Specific cases were not identified directly adjacent to the proposed timber sale units.

9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☐No ☒Yes, explain:
A small increase in surface runoff is anticipated and could occur for the a few years following harvest. Runoff is expected to return to preharvest conditions relative to this proposal within 25 years. Stream and water quality after timber harvesting should not be materially affected due to the protective measures taken in sale design and compliance.

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?

The G.I.S. database indicates that there are 4.4 miles of road per square mile in the Discovery Bay WAU and 3.8 miles of road per square mile in the Sequim Bay WAU. No sub basin data is available.

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☐No ☒Yes, describe:

There are likely cases where this has occurred elsewhere in the WAU. It has not been observed on or near the proposal.

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.
☒No ☐Yes, approximate percent of WAU in significant ROS zone.
Approximate percent of sub-basin(s):

12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?

☐No ☒Yes, describe observations:

There have been increases in peak flows associated with small drainage basins that contain a high percentage of young (less than 25 years old) timber which have created channel scouring. Specific instances of this occurring were not identified directly adjacent to the proposed timber sale units. The closest example would be some basins within the reach of the Salmon Creek sub-basin.

14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.

A small increase in peak flow is anticipated as a result of this proposal. Negative impacts are not anticipated based on the following: the size of the harvest area in relation to the acreage contained within the WAU and sub-basin, the ability of the proposed harvest area (and surrounding forest land) to regain hydrologic maturity through time, and the buffering effects of riparian and wetland management zones. All current and future activities will be conducted according to the State's HCP, and are expected to mitigate for any potential adverse cumulative effects.

15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?
☐No ☒Yes, possible impacts:

There is a potential for some increase in water yield downstream of the proposal. No negative impacts are anticipated.

16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.

Road network planning and road design have been performed in order to minimize the amount of road construction needed, and to ensure the quality of existing and newly constructed roads. The spatial forest cover analysis was examined to ensure adherence to current policy on hydrologic maturity within WAU boundary. G.I.S landscape reports were checked to evaluate the location of this proposal relative to the rain-on-snow zone mapping units. The overall sale design will also help to minimize impacts as noted by the difference in net sale acreage relative to the proposal area acreage that was initially considered for harvest. Prompt reforestation will initiate a move towards the recovery of hydrologic maturity.

b. Ground Water:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Does not apply.

3) Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?
☒No ☐Yes, describe:

a) Note protection measures, if any.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water will be collected by ditches, ditchouts and cross drains and diverted to stable forest floor material.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No.

a) Note protection measures, if any.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

Also see B.1.h. and B.3.c.1 above. Yarding equipment restrictions and timing restrictions for new road construction will reduce the potential for off site movement of sediment during the period of late fall through early spring when surface runoff is at its peak. The sale design, including harvest system design and road construction considerations, should maintain natural flow patterns.

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☐maple, ☐aspen, ☒cottonwood, ☐western larch, ☐birch, ☐other:
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☐Pacific silver fir, ☐ponderosa pine, ☐lodgepole pine,

☒western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,
☐red cedar, ☐yellow cedar, ☐other:
☒shrubs: ☐huckleberry, ☒salmonberry, ☒salal, ☒other: Oregon grape, sword fern
☒grass
☐pasture
☐crop or grain
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☐devil's club, ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐plant communities of concern:

b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

This proposal involves harvesting 99.6 acres of 60-100 year old mixed species, heavy to Douglas fir, along with western hemlock, red cedar, and red alder. The species composition will not be significantly changed in the WAU, as the area will be reforested with similar species. Approximately eight trees per acre will be left scattered and clumped to provide some structures for wildlife use. Leave trees include at least two trees per acre of the largest trees on site. Defective trees that have been identified as valuable for wildlife have also been left. Approximately 2,165 thousand board feet of timber will be removed. Most of the conifer and deciduous trees will be harvested, with the exception of those left distributed throughout the sale area for wildlife purposes. Shrub and herbaceous plants will be disturbed during logging, however most species will recover and respond favorably to the increase in available sunlight. There will be a transition from more shade tolerant species to intolerant species.

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")

This proposal contains stands that fall within the western hemlock vegetation zone (TSHE). To the north is a large private land owner and State land, both logged about 1995. To the east is a forested wetland, Type 4 and Type 3 stream given a buffer of 155 feet, beyond is State owned timber 60-100 years old. To the south is State owned timber that was harvested in 1998. The west boundary is a mix approximately 50 percent of standing timber 60-100 years old and the other 50 percent is 2 smaller harvest units logged in about 1980. The western boundary is also an arch of the Jimmycomelately Creek status 1 owl circle.

2) Retention tree plan:

Retention trees are both scattered and clumped to provide a wide variety of upland habitat diversity. Clumps have been left around the perimeter of the small forested wetland, where buffers are not required due to their small size (<0.25 acre). Trees in this area are representative of the stand. There are 10 clumps (742 trees) in the Unit. A number of individually scattered trees have also been designated (107). Individually marked leave trees were selected to represent the dominant size and crown class, or to capture unique structure. An effort was made to identify and select the older, residual trees. Snags that can be safely left standing will remain. A down log component will also be provided by requiring all trees down for 5 years or more be left undisturbed. These legacy trees and reserve trees will help to provide future multi-layered canopies and general habitat diversity. They will also help to reduce the visual impacts from regeneration harvests.

c. List threatened or endangered plant species known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Dispersed individual trees and scattered clumps of trees will be left at an average density of 8 trees per acre after harvest.

5. Animal

a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:

birds: ☐hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☐other:
mammals: ☒deer, ☐bear, ☐elk, ☐beaver, ☐other:
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	39499	Jimmycomelately Creek –Site # 410	Status 1 reproductive	endangered
1	39499	Salmon Creek- Site #726	Status 1 reproductive	endangered

The proposed harvest area was evaluated for its suitability as potential marbled murrelet habitat using the DNR's computer modeling technique. Results indicate that the proposal does not meet the threshold to be considered habitat. The owl circles referenced above are status 1 reproductive circles. The activity in the Jimmycomelately Creek circle include cutting of 25 conifer trees to allow for construction of new road, timber haul on newly constructed and existing roads and maintenance of existing roads. The activity in the Salmon Creek circle include processing rock in an existing State owned rock pit, rock haul and road maintenance. The proposal is proceeding based on the DNR's Habitat Conservation Plan strategy for managing spotted owls, which designated this area as having no role in long term conservation of the northern spotted owl. Type 3

waters are found in proximity to the proposal area. Two threatened runs of salmon have been identified for this general area within western Washington. They include the Hood Canal Chum Summer Run, and the Chinook Puget Sound Run. HCP procedures for riparian protection have been followed.

c. Is the site part of a migration route? If so, explain.
☒Pacific flyaway ☐Other migration route: Explain if any boxes checked:

d. Proposed measures to preserve or enhance wildlife, if any:

Dispersed and clumped leave trees will provide some structure for many wildlife species to use. The density of leave trees will average eight trees per acre for the sale. Snags and down wood will also be provided. The new open cover type created by the harvest will enhance foraging opportunities for some wildlife species. Riparian management zones will provide ample buffering along fish bearing streams. Wetland management zones will also benefit riparian obligate species. The HCP riparian strategy will provide old forest conditions across the landscape over time.

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.
Species /Habitat: see above Protection Measures:
Species /Habitat: Protection Measures:
Species /Habitat: Protection Measures:

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Does not apply.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Does not apply.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There is a minimal hazard incidental to operating heavy machinery. Harvest operations will increase the risk of fire for a period of time. Contract language and State burning rules will require operations to be performed in a manner that will reduce the risk of fire. Fire suppression tools and equipment will be made readily available on site.

1) Describe special emergency services that might be required.

Does not apply.

2) Proposed measures to reduce or control environmental health hazards, if any:

See 7.a. above. Contract language will require that preventative measures be taken to avoid on site disposal, or spilling of hazardous materials. The reporting and cleanup of any spills of petroleum based products or other waste will also be required.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
Does not apply.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Noise will be created from heavy equipment and log truck traffic during daylight hours while the sale is active.

3) Proposed measures to reduce or control noise impacts, if any:

None.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)

The proposal area is used for timber production, the adjacent properties are zoned as commercial forest.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

Does not apply.

e. What is the current zoning classification of the site?

Zoning is commercial forest 80.

f. What is the current comprehensive plan designation of the site?

Resource production.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Proposed activities are compatible with land use designation.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?
Foreground views from U.S. Highway 101 will change from timbered to harvested with scattered leave trees. The foreground will be replaced over the first decade following harvest with a young conifer forest resulting from reforestation of the site.

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒No ☐Yes, viewing location:

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☐No ☒Yes, scenic corridor name:

The proposal is visible from U.S. Highway 101, for a very short time and very distant view.

3) How will this proposal affect any views described in 1) or 2) above?

The foreground view will change from one of standing mature timber to that of harvest unit with scattered residual leave trees.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Dispersed and group retention of leave trees will help break up the outlines of the even aged harvest. Prompt reforestation will limit the length of time the harvest area will be visible.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply.

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are informal recreational opportunities for hiking, bird watching, and hunting. Motorcyclists, mountain bike riders and horseback riders also use logging roads in the area.

b. Would the proposed project displace any existing recreational uses? If so, describe:

Yes, the proposal will temporarily displace informal recreational activity. The area will most likely be closed to the public during timber harvest for public safety reasons.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

The Trax system located the following archaeological/historical site in adjacent sections: Concern I.D. # OL00068. The site is located approximately one half mile to the south of the proposal.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

In the northwest corner of the sale an old Army site thought to be used for radar communication is evident. Several years ago a historian from the Army was ask to inspect the site, nothing significant was found. Although not required leave trees where clumped around the site to protect it.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

A leave tree clump was placed around the old foundation and footings to help protect the site.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

1) Is it likely that this proposal will contribute to an <u>existing</u> safety, noise, dust, maintenance, or other transportation impact problem(s)?

Nol.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

This proposal will involve 2,666 ft of new logging road construction, and 4,2245 ft of reconstruction. Work will include roadside brushing, ditch work, application of surfacing, grading, culvert placement, and excavation.

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

The roads for this proposal have been planned as part of a larger transportation network to serve future management needs in the area. Such planning will provide for efficient use of the road system and eliminate unnecessary road construction.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

A minor number of trips will be generated in association with normal land management activity.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.

None.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: ____Cindi Tonasket _____ Forester 1_____Date: __May 2, 2003_____
Title